

Serial No. 10/719,013
Reply to Office Action of June 8, 2005

Docket No. MDR-0004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-16. (Canceled).
17. (Currently Amended) A compressed gas operated pistol, comprising:
 - a barrel zone, wherein a barrel disposed within the barrel zone is positioned with a rear end of the barrel facing a firing chamber of the pistol;
 - a trigger zone, comprising a trigger linked to a hammer;
 - a stock zone, wherein the stock zone comprises:
 - an ammunition magazine configured to insert and retain a pellet in the firing chamber prior to a shot;
 - a pressurized gas cylinder configured to connect to a valve chamber; and
 - a valve element configured to connect the valve chamber and the firing chamber, wherein the valve element is configured to be moved from a closed position to an open position by an impact of the hammer; and
 - a sealing device configured to isolate the firing chamber with respect to the ammunition magazine, wherein a catch portion is configured to link the trigger and the barrel,

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and wherein the trigger is linked to an elastic element provided in a forward portion of the trigger such that, when the trigger is pressed against the force of the elastic element, the barrel is moved in an axial direction to activate the sealing device.

18. (Canceled).

19. (Previously Presented) The pistol of claim 17, wherein the sealing device comprises:

a cylindrical wall provided at a rear portion of the barrel, wherein an interior surface of the cylindrical wall is configured to define a continuation portion of the barrel, and an exterior surface of the cylindrical wall is configured to fit within an interior surface of the firing chamber; and

a final perimeter edge formed at a rear edge of the cylindrical wall and configured to be supported against a rear surface of the firing chamber when the barrel is fully inserted into the firing chamber so as to surround a compressed gas inlet, wherein the cylindrical wall and the final perimeter edge are configured to contain compressed gas provided by the pressurized gas cylinder within the firing chamber.

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20. (Previously Presented) The pistol of claim 19, wherein the exterior surface of the cylindrical wall is configured to prevent the compressed gas in the firing chamber from passing into the ammunition magazine through an opening of the ammunition magazine.

21. (Previously Presented) The pistol of claim 19, wherein the cylindrical wall is configured to collect a pellet positioned in the firing chamber and to place the pellet in a firing position as the barrel is moved backwards through the activation of the trigger and the final perimeter edge contacts the rear surface of the firing chamber.

22. (Previously Presented) The pistol of claim 21, wherein the pellet is released from the firing chamber when the sealing device is fully engaged.

23. (Previously Presented) The pistol of claim 17, wherein the ammunition magazine comprises:

an ammunition store connected to the firing chamber through an opening in an upper portion of the ammunition magazine, wherein the ammunition store is configured to accommodate a plurality of pellets arranged in a column;

an ammunition push mechanism positioned at a lower end of the ammunition store and configured to push the column of pellets towards the opening in the upper portion of the ammunition magazine; and

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an ammunition release mechanism configured to release a pellet from the column of pellets into the firing chamber.

24. (Previously Presented) The pistol of claim 23, wherein the ammunition push mechanism comprises a push member in communication with a spring provided at a lower end of the column of pellets.

25. (Previously Presented) The pistol of claim 23, wherein the ammunition release mechanism comprises a trap rotatably coupled to a shaft positioned at the opening in the upper portion of the ammunition magazine, wherein the trap is configured to be pushed upwards by an adjacent pellet in the column of pellets so as to release a pellet into the firing chamber, and to be pushed downwards by the sealing device as it passes over the trap so as to trap a remaining plurality of pellets in the ammunition store.

26. (Previously Presented) The pistol of claim 17, further comprising:
a sliding cover provided in an upper section of the barrel zone and coupled to the trigger; and
a connection mechanism configured to connect a rear end of the sliding cover to the hammer, wherein the sliding cover is configured to move backwards in a direction parallel to the barrel when the trigger is pressed so as to activate the hammer.

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27. (Previously Presented) The pistol of claim 26, wherein the connection mechanism comprises:

a protuberance provided on the hammer; and

a pawl provided at a rear end of the sliding cover and configured to engage with the protuberance, and to disengage from the protuberance upon a backwards movement of the sliding cover so as to cause the hammer to produce an impact on the valve element.

28. (Previously Presented) The pistol of claim 26, further comprising a safety catch connected to the trigger, wherein the safety catch is configured to interfere with a stop provided at an inner portion of the sliding cover when the trigger is at a rest position so as to prevent a movement of the sliding cover independent of a movement of the trigger, and to permit movement of the sliding cover when the trigger is pressed.

29. (Previously Presented) The pistol of claim 28, further comprising an arm pivotably mounted on a casing of the pistol, wherein the safety catch is configured to be connected to the arm, and wherein the arm comprises a linear guide configured to slide along a snug provided on the trigger so as to cause a downward movement of the safety catch when the trigger is pressed.

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30. (Previously Presented) The pistol of claim 26, wherein the trigger comprises:
a trigger piece provided in the trigger zone and configured to slide in a linear direction parallel to the barrel;
a plurality of drag snugs extending from the trigger piece, wherein a plurality of stops formed on an inner portion of the sliding cover are configured to receive the plurality of drag snugs, thus causing the sliding cover to be dragged when the plurality of drag snugs are engaged with the plurality of stops and the trigger piece is moved; and
a cavity configured to receive a catch fixed to the barrel and to drag the barrel when the catch is engaged in the cavity.

31. (Previously Presented) The pistol of claim 30, wherein the cavity comprises a pair of contact walls with a space formed therebetween configured to receive the catch, and wherein a distance between the contact walls is greater than a width of the catch so as to provide a delay in barrel movement with respect to trigger movement.

32. (Previously Presented) The pistol of claim 26, further comprising a voluntary safety element mounted on an upper exterior portion of the stock zone, comprising:
a recess formed on a rear portion of the sliding cover; and

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a tooth configured to fit into the recess when the voluntary safety element is engaged, and to remain in a position outside of the recess when the voluntary safety element is disengaged.

33. (Previously Presented) The pistol of claim 17, wherein the stock zone further comprises:

a hollow support casing which is open at a lower end and configured to receive a casing, wherein the casing is configured to house the ammunition magazine and a cavity configured to receive the pressurized gas cylinder therein;

a needle configured to perforate a gas outlet portion of the pressurized gas cylinder;

a valve body configured to receive the valve chamber and valve element; and
a sliding protector configured to cover an end of the valve element when the casing is removed from the stock zone.

34. (Previously Presented) The pistol of claim 33, wherein the sliding protector is configured to slide into a protection position through the action of a spring provided in the stock zone, and to be held in the protection position by a stop provided in an upper portion of the stock zone so as to retain the casing in the stock zone through the activation of a retainer

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provided on the hollow support casing, and wherein the sliding protector is configured to eject the casing from the stock zone when the retainer is deactivated.

35. (Previously Presented) The pistol of claim 33, wherein the casing comprises:
a cover pivotably coupled to the open lower end of the casing and configured to pivot between an open and a closed position, comprising an interior cavity configured to protect a fastener of the compressed gas cylinder in the closed position; and
a lock positioned at the open lower end of the casing and configured to secure the cover to the open lower end of the casing in the closed position.

36. (Previously Presented) The pistol of claim 35, wherein the cover is configured to define an exterior surface of the casing when the cover is in the closed position.

37. (Previously Presented) The pistol of claim 17, further comprising a plurality of longitudinal channels formed on sides of the barrel zone and configured to receive a plurality of accessories.

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38. (Currently Amended) A compressed gas operated pistol, comprising:

a firing chamber;

a barrel positioned with a rear end facing the firing chamber and configured to be partially inserted into the firing chamber;

a trigger, comprising a trigger piece linked to a hammer;

a sliding cover positioned proximate to the barrel and coupled to the trigger, wherein the sliding cover is configured to move backwards in a direction parallel to the barrel when the trigger is pressed so as to activate the hammer;

an ammunition magazine configured to insert and retain a pellet in the firing chamber prior to firing of the pistol;

a pressurized gas cylinder configured to provide pressurized gas to the firing chamber through a valve element; and

a sealing device configured to contain the pressurized gas provided by the pressurized gas cylinder within the firing chamber, wherein the sealing device comprises:

a cylindrical wall formed extended from a rear portion of the barrel; and

a perimeter edge formed at a rear edge of the cylindrical wall,

wherein an interior surface of the cylindrical wall is configured to define a continuation portion of the barrel, and an outer surface of the cylindrical wall is configured to fit within an interior surface of the firing chamber, and

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wherein the perimeter edge is configured to be supported against a rear surface of the firing chamber when the barrel is fully inserted into the firing chamber and to surround an inlet formed in the firing chamber configured to allow pressurized gas to flow into the firing chamber from the pressurized gas cylinder.

39. (Previously Presented) The pistol of claim 38, wherein a sealing action of the sealing device is initiated when the trigger is pressed.

40-42. (Canceled).

43. (Currently Amended) The pistol of ~~claim 42~~ claim 38, wherein the cylindrical wall is configured to collect a pellet positioned in the firing chamber and to place the pellet in a firing position within the firing chamber as the barrel is moved backwards through an activation of the trigger and the perimeter edge contracts the rear surface of the firing chamber.

44. (Currently Amended) The pistol of ~~claim 42~~ claim 38, wherein the cylindrical wall and the perimeter edge are configured to prevent the compressed gas in the firing chamber from leaking out of the firing chamber through and opening in the ammunition magazine.

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45. (Previously Presented) The pistol of claim 38, wherein the pellet is released from the firing chamber when the sealing device is fully engaged.

46. (Previously Presented) The pistol of claim 38, wherein the ammunition magazine comprises:

an ammunition store configured to receive a plurality of pellets arranged in a column, wherein the ammunition store is connected to the firing chamber through an opening in an upper portion of the ammunition magazine;

an ammunition push mechanism positioned at an end of the column of pellets and configured to push the column of pellets towards the opening in the upper portion of the ammunition magazine, comprising a spring provided at a lower end of the column of pellets; and

an ammunition release mechanism configured to release a pellet from the column of pellets into the firing chamber through the opening in the upper portion of the ammunition magazine.

47. (Previously Presented) The pistol of claim 46, wherein the ammunition release mechanism comprises a trap rotatably coupled to a shaft positioned at the opening in the upper portion of the ammunition magazine, wherein the trap is configured to be pushed upwards by an adjacent pellet in the column of pellets so as to release an uppermost pellet in the column of pellets from the ammunition store into the firing chamber, and to be pushed downwards by the

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sealing device as it passes over the trap so as to trap a remaining plurality of pellets in the ammunition store.

48. (New) A compressed gas operated pistol, comprising:

- a barrel zone, wherein a barrel disposed within the barrel zone is positioned with a rear end of the barrel facing a firing chamber of the pistol;
- a trigger zone, comprising a trigger linked to a hammer;
- a stock zone, wherein the stock zone comprises:
 - an ammunition magazine configured to insert and retain a pellet in the firing chamber prior to a shot;
 - a pressurized gas cylinder configured to connect to a valve chamber; and
 - a valve element configured to connect the valve chamber and the firing chamber, wherein the valve element is configured to be moved from a closed position to an open position by an impact of the hammer; and
- a sealing device configured to isolate the firing chamber with respect to the ammunition magazine, the pistol further comprising:
 - a sliding cover provided in an upper section of the barrel zone and coupled to the trigger; and

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a connection mechanism configured to connect a rear end of the sliding cover to the hammer, wherein the sliding cover is configured to move backwards in a direction parallel to the barrel when the trigger is pressed so as to activate the hammer.